GOVERNMENT OF ANDHRA PRADESH
A B S T R A C T

PR & RD Dept. – Introduction to Road Construction with Soil Stabilisation/Full Depth Reclamation Technology using Cement & "Stabilroad" Additive – Orders – Issued.

PANCHAYAT RAJ & RURAL DEVELOPMENT (PROGS.II) DEPARTMENT

G.O.RT.No. 144 **Dated: 18-03-2021.**

Read the following:-

1. G.O.Rt.No.245, PR & RD (Prog.II) Dept., dt.01.03.2019.
2. Govt. Memo No. PRE0PROG(CSS)/33/2019, PR & RD (Progs.II) Dept., dt 08.05.2019.
3. From the Project Director, APRRP & Engineer-in-Chief, Panchayat Raj, A.P., Vijayawada letter No.1819/APRRP/StabilRoad/2019, dt.18.11.2020 and 28.01.2021.

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O R D E R:-

In the G.O. first read above, Technical Committee has been constituted to study and recommend on the techno-economical modalities on adoption of recycling of insitu/borrow materials for soil stabilisation using latest machinery in AIIB project for two packages of Krishna Dist. The Committee comprises of 8 members, including the Technical Advisor to Government, PR & RD, Engineer-in-Chief, PR., A.P., Vijayawada, Chief Engineer, PR., and others.

2. In the Government Memo second read above, permission has been accorded for adoption of recycling of insitu/borrow materials for StabilRoad Technology wherever feasible using latest machinery adoption for packages 18 & 19 of APRRP (AIIB) in Krishna District in place of conventional provisions not exceeding the cost of pavements as per conventional methods.

3. The Project Director, APRRP & Engineer-in-Chief, Panchayat Raj, A.P., Vijayawada in his letters third read above, has furnished his report as indicated below:-

- In the minutes of the meeting held by the Principal Secretary to Government, PR & RD on 07.02.2019, it was decided to take up StabilRoad technology in Krishna District Packages under AIIB.

- The report of the Committee was submitted to Govt. The Committee recommended the techno-economic modalities including rates of hire charges of machinery and cost of chemical and also the method of construction using Stabil Road Technology for AIIB packages-18 & 19 of Krishna District.

- The firm M/s Viswa Samudra Engineering Pvt Ltd., Hyderabad has furnished experience certificate from Kerala and Telangana States.

- The Superintending Engineer, PR., Krishna has furnished test reports 6 (six) months after completion of stabilisation of road for the work "Kathipudi-Pamarru Road at 186/6 to Seehanapalli (via) Vadalapadu (Road Sl. No. 25) of Package 18 in Krishna District and found satisfactory.

- The CRRI, New Delhi has conducted durability and water absorption test samples collected from 3 different places viz. Krishnapatnam Port (AP), Poranki (AP) and Hyderabad (TS). In its report, the CRRI has clearly mentioned that during the initial testing recorded indicates a very still underlying layers ensuring the privileges of the high performance heavy volume pavements and also stated that the existing pavement will be acceptable functionally and structurally with only routine maintenance.

(P.T.O)

- The Technical Committee has reviewed the Test report, design reports, hire charges of machinery and chemical (additive) cost and cost analysis and recommended to implement the StabilRoad technology for the packages 18 & 19 of APRRP (AIIB) in Krishna District in place of conventional provisions not exceeding the cost of pavements as per conventional methods and duly maintaining wearing surface as originally proposed in the estimate.

- Indian Roads Congress, the apex body for Highway Engineers, has accredited StabilRoad technology for cement stabilised pavements vide their Lr.No.IRC-24(7)2018(acc-305), Dt. 21.01.2020.

- The NRRDA has issued guidelines for use of StabilRoad technology in PMGSY Works, vide their Lr. No.NRRDA-PO17(@$)/12020-JD(Tech) (EFMS-369957).

- On entrustment to provide test reports on leaching, the Indian Institute of Technology (IIT), Madras, in their letter No nil, dt.25.01.2020, has informed that the chemical pollution in ground water near to the roads laid using StabilRoad technology are well within permissible limits.

- The Indian Institute of Toxicology Research (IITR), Lucknow, a CSIR lab and authenticated Institute on Toxicology reported in their letter No.CSIR-IITR/RPBD-964/2019 of IITR, Lucknow, dt.27.11.2019 that **"No abnormal behaviour of Toxicity signs were observed."**

- The above information has been placed before the Committee of Chief Engineers, PRED and the Committee, in its minutes, dated.10.11.2020 have recommended that new Technology can be adopted as long as the cost of such use shall not exceed the conventional road construction being followed in respective areas. Also suggested to adhere to the provisions of IRC SP 89 on cement stabilisation roads and to ensure the minimum strength of 3 MPA required for rural roads while using StabilRoad technology.

- Trial sections/roads selected by PRED from packages 18 and 19 for adopting the StabilRoad technology as approved by the Govt. of AP is 102.3 km out of total length of 4824 km of Component 1A This is around 2% of Component IA roads.

- Further, in view of speedy and durable construction capabilities, the use of StabilRoad technology is proposed to extend for road works in Kadapa District under APRRP which is around 4.36% of project cost. It is also proposed stabilisation with StabilRoad technology for road works under various road works taken up under other grants in Panchayat Raj Department wherever feasible.

4. While stating the above, the Engineer-in-Chief, PR., A.P., Vijayawada has finally stated that the StabilRoad technology can be used for Rural Road construction on three grounds i.e., Strength, Durability, Environmental friendly and faster way of paving the roads compared to conventional methods.

5. In the above circumstances explained above, Government, after careful consideration, keeping in view the advantages as reported by the Superintending Engineer, PR Circle, Krishna Dist. and the Project Director, APRRP & Engineer-in-Chief, Panchayat Raj, A.P., Vijayawada, hereby accord necessary permission to use the StabilRoad Technology for Panchayat Raj roads wherever it is felt feasible on trail basis, subject to the following conditions:-

(a) cost of such construction shall not exceed the conventional road construction cost being followed in respective areas.

(b) adhere to the provisions of IRC SP 89 on cement stabilization roads and provisions of other relevant codes for rural roads.

(c) feasibility and selection of works to be decided by the Project Director, APRRP & Engineer-in-Chief, Panchayat Raj, A.P., Vijayawada.

Contd.....(3)

6. The Project Director, APRRP & Engineer-in-Chief, Panchayat Raj, A.P., Vijayawada shall take further necessary action in the matter accordingly.

7. A copy of this order is available on the Internet and can be accessed at www.ap.gov.in/goir.

(**BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)**

GOPAL KRISHNA DWIVEDI
PRINCIPAL SECRETARY TO GOVERNMENT

To
The Project Director, APRRP & Engineer-in-Chief, Panchayat Raj, A.P., Vijayawada.
Copy to:-
The Superintending Engineer, PR Circle, Krishna Dist.
The P.S. to M (PR & RD, G&M)
The P.S. to Prl. Secy. to Govt., PR & RD Dept
Sc/Sf.,

//FORWARDED:: BY ORDER//

SECTION OFFICER